

## CLAIM AMENDMENTS

Please amend claims 1-8, 11-15, 17, and 22-29; add claims 44-46; and cancel claims 16, and 18-21 without prejudice, as follows:

1. (currently amended) A method for determining the volume of a ~~sample of a liquid~~ dispensed liquid sample, comprising the steps of:

- providing a volume of a diluent in a container;
- dispensing ~~separating a liquid sample from said liquid~~ into said diluent in the container;
- mixing the dispensed liquid sample with said diluent in the container;
- staining of said mixture in the container by adding a chromophoric indicator to said liquid to achieve a specific concentration of said indicator;
- measuring the optical absorption of said ~~sample~~ stained mixture in the container; and
- determining the volume of the ~~separated~~ dispensed liquid sample by correlating ~~the said~~ the said measured optical absorption of the mixture with the ~~concentration of the indicator therein~~ optical absorption of a test sample that has an exactly defined concentration of the same chromophoric indicator,

wherein the chromophoric indicator to stain the mixture of sample liquid is ~~stained by formation of a complex between~~ and diluent is formed by complexing ~~indicator ions comprising the chromophoric indicator and a~~ with specific chromogenic ligands comprising the liquid sample.

2. (currently amended) A method for determining a residual volume of a ~~liquid sample separated from a liquid~~ in a sample holder, ~~from which~~ had been ~~provided with a liquid and from which~~ a part of the ~~liquid sample is~~ has been

removed, so that only said a sample residue residual volume of the liquid remains in the sample holder, the method comprising the steps of:

- adding a chromophoric indicator to said liquid to achieve a specific concentration of said indicator and thereby specific staining of the liquid,
- removing separating a sample part from said stained liquid in the sample holder,
- adding a diluent to the stained sample residue residual volume of the liquid, and
- measuring the optical absorption of the diluted sample residue residual volume of the liquid, and wherein the residual volume is
- determining the residual volume of the liquid by correlating the measured optical absorption of the diluted residual volume of the liquid with the optical absorption of a test sample that has the same specific concentration of the chromophoric indicator ~~the original concentration of the indicator in the liquid~~,

wherein the chromophoric indicator to stain the sample liquid is formed ~~stained by formation of a complexing between indicator ions comprising the chromophoric indicator and a~~ with specific chromogenic ligands ~~comprising the liquid sample~~.

3. (currently amended) The method according to Claim 1, wherein, prior to ~~separation of~~ dispensing the liquid sample, the chromophoric indicator ions are is complexed with the chromogenic ligands and added to the liquid to be dispensed as a colored complex solution with an exactly known concentration of chromophoric indicator.

4. (currently amended) The method according to Claim 2, wherein, prior to ~~separation of~~ dispensing the liquid sample, the chromophoric indicator ions are is complexed with the chromogenic ligands and added to the liquid to be dispensed as a

colored complex solution with an exactly known concentration of chromophoric indicator.

5. (currently amended) The method according to Claim 1, wherein, prior to ~~separation of~~ dispensing the liquid sample, a compensating diluent volume is provided in ~~a sample holder~~ the container as part of a diluent.

6. (currently amended) The method according to Claim 32, wherein, prior to ~~separation of the~~ dispensing a liquid sample, a compensating diluent volume is provided in ~~a sample holder~~ the container as part of a diluent.

7. (currently amended) The method according to Claim 1, wherein, prior to ~~separation of~~ dispensing the liquid sample, an indicator salt is added to the liquid in order to provide a known concentration of chromophoric indicator ions in the liquid to be dispensed, and a sample of the liquid is dispensed into the diluent, which is an existing reaction solution that comprises chromogenic ligands and, which thereby are complexed therein to develop a color.

8. (currently amended) The method according to Claim 1, wherein, before being added to the liquid to be dispensed and for improving ~~its~~ their solubility in said liquid, the chromophoric indicator ~~is~~ ions are complexed with a auxiliary ligands and added to the liquid to be dispensed, a sample of the liquid is dispensed into the diluent, which is an existing reaction solution that comprises chromogenic ligands and is complexed therein under conditions that suppress the auxiliary ligand and color development, which chromogenic ligands then suppress the auxiliary ligands from the indicator ions so that the indicator ions are complexed with the chromogenic ligands under color development.

9. (original) The method according to Claim 7, wherein the chromogenic ligand is added to the existing reaction solution in excess.

10. (original) The method according to Claim 8, wherein the chromogenic ligand is added to the existing reaction solution in excess.

11. (currently amended) The method according to claim 3, 4, 5, 6, 7, 8, 9, or 10, wherein, after ~~the separation of~~ dispensing the liquid sample into a sample holder well, a supplementary diluent volume is added to this sample holder.

12. (currently amended) The method according to Claim 1; or 2 or 11, wherein metal ions are used as indicators ions for complexing with the chromogenic ligands.

13. (currently amended) The method according to Claim 12, wherein the metal ions are  $\text{Fe}^{++}$ ,  $\text{Fe}^{+++}$  (or mixtures of  $\text{Fe}^{++}$  and  $\text{Fe}^{+++}$ ), or  $\text{Cu}^{++}$ .

14. (currently amended) The method according to Claim 1; or 2 or 11, wherein anions are used as indicators ions for complexing with the chromogenic ligands.

15. (currently amended) The method according to Claim 14, wherein the anions are  $\text{F}^-$ ,  $\text{Cl}^-$ , or  $\text{H}_2\text{PO}_4^-$ .

16. (cancelled)

17. (currently amended) The method of Claim ~~22~~16, wherein the metal ions is are  $\text{Fe}^{+++}$ .

Claims 18-21 (cancelled)

22. (currently amended) The method according to Claim 12, wherein, prior to complexing with the chromogenic ligands, the—metal ions which cannot be quantitatively complexed with the chromogenic ligands are reduced or oxidized to indicator ions which can be complexed ~~before complexing~~ with the said ligands.

23. (currently amended) The method according to Claim 22, wherein hydroxyl amine hydrochloride, tartrate salts, or ascorbic acid is used as a reducing agent, and hexacyanoferrate or ~~elementary~~ elemental bromine is used as an oxidizing agent.

24. (currently amended) The method according to Claim 1 or 2, wherein a polydentate molecules are ~~is~~ used as a chromogenic ligands.

25. (currently amended) The method of claim 24, wherein the polydentate ligand ~~is as~~ molecules are selected from FerroZine<sup>®</sup>, bathophenanthroline-disulfonic acid disodium, bathocuproine-disulfonic acid disodium, ~~or~~ and Chromazurol S.

26. (currently amended) The method according to claim ~~18~~, wherein  $\beta$ -diketones are used as auxiliary ligands.

27. (currently amended) The method of claim 26, wherein the  $\beta$ -diketones ~~is~~ are selected from a group comprising acetyl acetone ~~or~~ and pentane-2,4-dione-1,5-diol.

28. (currently amended) The method of claim 14, wherein anthraquinone functionalized systems covalently bonded at the  $\beta$  position are used as chromogenic ligands.

29. (currently amended) The method of claim 28, wherein the anthraquinone functionalized systems covalently bonded at the  $\beta$  position is calix[4]pyrrole-anthraquinone.

30. (withdrawn) A system for performing the method according to claim 1 comprising a dispensing and/or pipetting device, a sample holder for holding separated samples, a device for measuring the optical absorption of the samples in the sample holder, and a computer for calculating the volume of the separated samples.

31. (withdrawn) The system according to Claim 30, comprising an automated pipettor or dispenser having N channels, wherein N is 1, 4, 8, 96, or 384 channels.

32. (withdrawn) The system according to Claim 30, comprising a microplate washer having N channels, wherein N is 8, 12, 16, 96, or 384 channels.

33. (withdrawn) The system according to Claim 30, 31, or 32, wherein the sample holder is an array of wells or a microplate.

34. (withdrawn) The system according to Claim 31 or 32, comprising a carrier plate having external dimensions of a microplate and further comprising a device for measuring microplate temperature.

35. (withdrawn) A test kit for performing a method according to claim 1 or for use in a system according to claim 30, the kit comprising at least one solution of the chromophoric indicator having a defined concentration and optical absorption and a receptacle suitable thereto.

36. (withdrawn) A test kit according to Claim 35, additionally comprising a defined reaction solution of a chromogenic ligand and a receptacle suitable thereto.

37. (withdrawn) A test kit according to Claim 35 or 36, additionally comprising a reducing or oxidizing agent and a receptacle suitable thereto.

38. (withdrawn) A test kit according to claims 35 or 36, additionally comprising a diluent buffer or an auxiliary ligand and a receptacle suitable thereto.

39. (withdrawn) A test kit according to claim 37, additionally comprising a diluent buffer or an auxiliary ligand and a receptacle suitable thereto.

40. (withdrawn) A test kit according to claims 35 or 36, additionally comprising one or a plurality of microplates.

41. (withdrawn) A test kit according to claim 37, additionally comprising one or a plurality of microplates.

42. (withdrawn) A test kit according to claim 38, additionally comprising one or a plurality of microplates.

43. (withdrawn) A test kit according to claim 39, additionally comprising one or a plurality of microplates.

44. (new) The method according to claim 1 or 2, wherein the chromophoric indicator has a three-dimensional coordination geometry, which greatly hinders adsorption of this type of molecule on apolar surfaces.

45. (new) The method according to claim 25, wherein the chromophoric indicator comprises substituted ionic groups that further amplify the hydrophilic properties of the chromophoric indicator.

46. (new) The method according to claim 1, wherein metal ions, which cannot be quantitatively complexed with the chromogenic ligands, are complexed with auxiliary ligands for improving their solubility in a liquid, a sample of said liquid is dispensed into the diluent, which is an existing reaction solution that comprises chromogenic ligands and a reducing or oxidizing agent, which reducing or oxidizing agent is reducing or oxidizing the metal ions to indicator ions that are then complexed with the chromogenic ligands under color development.